

# Notice of Allowability

Application No.	Applicant(s)	
09/683,853	ZENG ET AL.	
Examiner	Art Unit	
Carlos Lopez	1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 3/15/04 and 5/28/04.
2. ☒ The allowed claim(s) is/are 2, 4-17, 27 and 28.
3. ☒ The drawings filed on 2/22/02 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date 5/28/04
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

**EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Han Pham on 5/28/04. It was noted to applicant that the Burrus reference still read on the instant invention because the claimed "generally quartz material" is indistinguishable from the silica quartz preform of Burrus. In order to advance prosecution, applicant thus agreed to place claims 6-7 in its dependent form, cancel claims 1, 3, 18-23 and change the dependency of claims 2, 4-5, and 12 to claim 6. Additionally, it was agreed to cancel product claims 24-26 as being non-elected by the original presentation of the method claims.

The application has been amended as follows:

Claims 1, 3, and 18-26 have been cancelled.

The following claims have been rewritten to read as follows:

2. (Currently Amended) The method of claim 4 6 further comprising the step of heat treating the article drawn from the furnace in a substantially hydrogen-free gas atmosphere or vacuum.

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4. (Currently Amended) The method of claim 4 6 wherein the D<sub>2</sub> gas and inert gas or mixture of inert gases are present in a volume ratio of about 20% D<sub>2</sub> and about 10% inert gas or mixture of inert gases.

5. (Currently Amended) The method of claim 4 6 wherein the D<sub>2</sub> gas and inert gas or mixture of inert gases are present in a volume ratio of about 90% D<sub>2</sub> and about 10% inert gas or mixture of inert gases.

6. (Currently Amended) A method for forming an elongated fused quartz article comprising the steps of:

a) feeding a generally quartz (SiO<sub>2</sub>) material into a furnace;

b) fusing the quartz (SiO<sub>2</sub>) material in a melting zone of the furnace under a gas atmosphere comprising a molecular deuterium (D<sub>2</sub>) gas ~~The method of claim 3~~  
wherein the dew point of the gas atmosphere ~~of step b)~~ is about -30°C to about 80°C;

c) drawing the article from the furnace; and

d) optionally, baking the article in a gas atmosphere comprising a deuterium gas wherein the gas atmosphere of steps b) or d) further comprises an inert gas or a mixture of inert gases.

7. (Currently Amended) A method for forming an elongated fused quartz article comprising the steps of:

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a) feeding a generally quartz ( $\text{SiO}_2$ ) material into a furnace;

b) fusing the quartz ( $\text{SiO}_2$ ) material in a melting zone of the furnace under a gas atmosphere comprising a molecular deuterium ( $\text{D}_2$ ) gas ~~The method of claim 3~~  
wherein the dew point of the gas atmosphere ~~of step b)~~ is about  $-20^\circ\text{C}$  to about  $10^\circ\text{C}$ ;

c) drawing the article from the furnace; and

d) optionally, baking the article in a gas atmosphere comprising a deuterium gas wherein the gas atmosphere of steps b) or d) further comprises an inert gas or a mixture of inert gases.

8. (Currently Amended) The method of claim 4 6 being a continuous process.

9. (Currently Amended) The method of claim 4 6 wherein the article is a deposition tube.

10. (Currently Amended) The method of claim 4 6 wherein the article is a sleeve tube.

12. (Currently Amended) The method of claim 4 6 wherein the baking is carried out at a temperature of about  $200^\circ\text{C}$ . to about  $1500^\circ\text{C}$ .

17. (currently Amended) The method of claim 13 further comprising the step of :

e f) baking the fused  $\text{SiO}_2$  article in a gas atmosphere comprising a deuterium gas.

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27. (Currently Amended) A method for forming an elongated fused quartz article comprising the steps of:

e a) feeding a generally quartz ( $\text{SiO}_2$ ) material into a furnace;

f b) fusing the quartz ( $\text{SiO}_2$ ) material in a melting zone of the furnace under a gas atmosphere comprising a molecular deuterium ( $\text{D}_2$ ) gas;

g c) drawing the article from the furnace; and

h d) optionally, baking the article in a gas atmosphere comprising a deuterium gas wherein the gas atmosphere of steps b) or d) further comprises an inert gas or a mixture of inert gases and wherein the dew point of the gas atmosphere of step b) is about  $-30^\circ\text{C}$  to about  $80^\circ\text{C}$ .

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Lopez whose telephone number is 571.272.1193. The examiner can normally be reached on Mon.-Fri. 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571.272.1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
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